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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,953	09/08/2006	Tomas Nylander	4144-9	6872
23117 7590 06/14/2011 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
WANG-HURST, KATHY W				
ART UNIT		PAPER NUMBER		
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06/14/2011		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,953

Applicant(s)

NYLANDER ET AL.

Examiner

KATHY WANG-HURST

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,9,14,15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,4,5,9,14,15,18-20,22 and 23 is/are rejected.
- 7) ☐ Claim(s) 3 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/4/2010 has been entered.

Claim Objections

2. Claim 3 is objected to because claim 3 claims the "said access point controller" which lacks antecedent basis. An "access controller" is claimed in claim 1 upon which claim 3 is dependent. The "said access point controller" should be replaced by the "said access controller". Appropriate correction is required.

Claim 4 is objected to because claim 4 claims the "said access network controller" which lacks antecedent basis. An "access controller" is claimed in claim 1 upon which claim 4 is dependent. The "said access network controller" should be replaced by the "said access controller". Additionally, the "said new identification data" lacks antecedent basis. The "said new identification data" suggests there is an old identification data which is not disclosed in the independent claim or its parent claim. Appropriate correction is required.

Claims 21-23 are objected to because claim 21-23 are dependent on claim 20 which claims "an access controller" and subsequent dependent claims should claim

"The access controller". Claims 3-5, 9, 18 are objected to due to similar problem and should be replaced with "The unlicensed-radio access network". Claims 15 and 19 are objected to due to similar problem and should be replaced with "The method".

Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed 6/4/2010 have been fully considered but they are not persuasive.

Regarding the applicant's argument that the prior art of record does not teach the amended limitation "said access controller is assigned at least one location area in said licensed ratio mobile network, said location area being separate and unique to said unlicensed radio access network" (see pages 7-8), the examiner respectfully disagrees. Lamb discusses a access point controller connected to a cellular network (the licensed network) and a 802.11 network (the unlicensed network) (see Lamb, [0030 and Fig. 4) and the cellular network has a large coverage area which is extended by the unlicensed network area which the cellular signals are weak or unreachable. A typical scenario would be a user travels from a cellular network coverage area into a large office building where in cellular signals cannot reach. The user then connects to a wireless local area network, WLAN, in the building for telephone communication. Thus the access controller is assigned a location area that is in the licensed radio mobile network and separate and unique to the unlicensed radio access network. Therefore Lamb discloses "said access controller is assigned at least one location area in said licensed ratio mobile network, said location area being separate and unique to said unlicensed radio

access network". In addition, the secondary reference Stanforth discusses a paging process before a voice call is connected (see Stanforth, [0045]) and therefore Stanforth discloses the amended limitation "for voice calls".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 9, 14-15, 18-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb et al. (US 2004/0209615) in view of Stanforth (US 2002/0058504).

Regarding claims 1 and 20, Lamb discloses an unlicensed-radio access network connected to a core network portion of a licensed mobile network (see e.g. Abstract and [0012][0022] a WLAN connected to a cellular network), said unlicensed-radio access network comprising:

an access controller (Fig. 4 item 403) connected to said core network portion,
a broadband network connected to said access controller and comprising a plurality of access points (Fig. 4 item 405), each said access point defining a mini-cell coverage area ([0022] a home network therefore a mini-cell coverage) and supporting an unlicensed-radio interface (Fig. 4 item 401, unlicensed radio interface) permitting communication between mobile stations located within a respective mini-cell and said access controller (Fig. 4 item 401),

wherein said access controller:

is adapted to communicate directly with mobile stations located in a mini-cell ([0024]);

is associated with one or more location areas in said licensed radio mobile network (Fig. 4 item 440, associated with cellular network);

comprises a database (Fig. 2 item 209) for storing an identification of a mobile stations in association with a network address for said mobile station on said broadband network ([0019][0022][0023] AAA is where the mobile stations are registered and verified).

Lamb discloses a database storing mobile station information in association with a network address but does not explicitly disclose network address is unique to said mobile station so as to enable said access controller to page said mobile station individually.

Stanforth teaches a unique relationship between the mobile terminal and gateway controller and gateway controller paging the mobile terminal to establish a connection ([0045]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to facilitate the call connection between the gateway controller and the mobile terminal through paging the terminal from its serving controller, as taught by Stanforth, thus allowing a smooth call connection between an ad-hoc network and a cellular network ([0045]).

Lamb discloses an access controller associated with a database containing mobile device information but does not specifically disclose said access controller being adapted to delete said identification data when said mobile station ceases to operate in the coverage areas of said unlicensed radio access network.

In an analogous art, Stanforth teaches a network gateway erasing calls information after the call is terminated ([0058]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to remove the identification information of the mobile terminal when the connection between mobile terminal and access network is terminated, as taught by Stanforth, thus allowing a more efficient use of memory space.

Regarding claim 14, Lamb discloses a method in an access controller of an unlicensed-radio access network, wherein said access controller is connected to a broadband network comprising a plurality of access points and to a core network portion of a licensed-radio cellular network and being adapted to communicate with mobile stations over an unlicensed-radio interface via said access points(see e.g. Abstract and [0012][0022] a WLAN connected to a cellular network), said method comprising:

establishing communication with a mobile station using a network address on said broadband network for said mobile station (see e.g. [0022]-[0025]),

receiving identification information specific to a mobile station from said mobile station,

registering said mobile station identification information in association with said mobile station network address on said broadband network(see e.g. [0022]-[0025]).

Lamb discloses identifying mobile station in association with a network address but does not explicitly network address is unique to said mobile station so as to enable said access controller to page said mobile station individually.

In an analogous art, Stanforth teaches a unique relationship between the mobile terminal and gateway controller and gateway controller paging the mobile terminal to establish a connection ([0045]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to facilitate the call connection between the gateway controller and the mobile terminal through paging the terminal from its serving controller, as taught by Stanforth, thus allowing a smooth call connection between an ad-hoc network and a cellular network ([0045]).

Lamb discloses an access controller associated with a database containing mobile device information but does not specifically disclose determining when a connection established with said mobile station is no longer maintained and deleting said mobile station identification information when it is determined that a connection is no longer maintained.

In an analogous art, Stanforth teaches a network gateway erasing calls information after the call is terminated ([0058]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb, to remove the

identification information of the mobile terminal when the connection between mobile terminal and access network is terminated, as taught by Stanforth, thus allowing a more efficient use of memory space.

Regarding claim 4, Lamb discloses registering and storing identification data on the broadband network (see e.g. [0022]-[0025]).

Regarding claims 9 and 23, combination of Lamb and Stanforth discloses an access controller as claimed in claim 1 and 20 respectively, wherein said access network controller is adapted to determine whether a connection with said mobile station is maintained and to delete said identification data on determining that said connection is, no longer maintained.

Regarding claim 15, combination of Lamb and Stanforth discloses a method as claimed in claim 14, further comprising: receiving a message from said core network portion paging a mobile station, retrieving mobile station identification information registered for said paged mobile, and forwarding said paging message only to the network address identified in association with said registered mobile station identification information.

18 and 19. Lamb discloses an access network as claimed in claim 1 and 14 respectively, wherein the broadband network is a fixed broadband network ([0022]).

6. Claims 5 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb in view of Stanforth, further in view of Haverinen et al. (US 2004/0208151).

Regarding claims 5 and 22, combination of Lamb and Stanforth discloses mobile station identification data but fails to disclose the mobile station identification data is the international mobile subscriber identity (IMSI).

Haverinen teaches transmitting IMSI for authentication ([0036]).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Lamb and Stanforth, to use IMSI as an identification to verify the mobile unit, as taught by Haverinen, thus allowing a more efficient way of authenticating the mobile terminal by using a widely recognized id.

Allowable Subject Matter

7. Claims 3 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, as well as overcoming the claim objections as shown above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571)270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamran Afshar can be reached on (571) 272-7796. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHY WANG-HURST/
Examiner, Art Unit 2617